Savannah River Site
H-Area Tank Farm Performance Assessment Scoping Meeting

April 20-22, 2010
230 Green Blvd.
Aiken Design Center Building
Village at Woodside
Aiken, SC

DRAFT MEETING NOTES

Tuesday, April 20, 2010 (8:30 a.m. - 5:00 p.m.)

Welcome and introductions made by Tom Gutmann, DOE-SR and Ginger Dickert, SRR.

The meeting proceeded with discussion of the topics as identified in the Agenda.

Review of General Information Package

- Consider development of functional requirements/key assumptions tracking process.
- Evaluate use of Hanford tool for tracking assumptions.
- Evaluate TRS IAEA-364 for potential updates to some factors (recently published). NRC will provide to DOE and SRR.
- Consider Features Events Processes (FEPs) style analysis to provide additional documentation for assumptions and approaches, as identified in the NRC comment on the FTF PA Rev. 0.

Review of Tank Design and Ancillary Equipment Input Packages

- Modeling for cooling coil and tank penetrations are examples where documentation of logic for approaches would be useful.
- There is interest in more information on intermediate modeling results being provided in PA (e.g., data on flow thru grout matrix vs. fracture flow). This would potentially include more information on flow runs, timing, chemical transition, etc.
- Evaluate expanding descriptions on model configurations including integration with sensitivity analyses. Provide additional information for the individual alternate configurations from a mechanistic standpoint.

Review of Estimated Inventory Input Package

- Clarify whether non-rad screening used RCRA Appendix 8 or TCLP list.
- Provide additional information on WCS specifically as to comparison of information based on sample analyses or special analyses or process knowledge. (Note – Copy of WCS data used for development of inventory estimate is made.)
- Provide additional information to clarify the decision making process for the salt versus sludge groupings for specific tanks.
- DOE to provide latest System Plan revision to EPA and NRC.
- Provide additional information to clarify methodology followed for estimating radionuclides for each tank.

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- Clarify basis for oxalic acid cleaning adjustment basis for Tc-99 (40% versus 90%).
- Consider impact of short lived radionuclides (cesium & strontium) for Tank 16 sand pad.
- Evaluate further adjustments to Type II sand pad inventories to ensure inventory is conservative including uncertainties in sample results, impacts from potential multiple wetting events, etc.
- Provide references for U-236 estimate of 0-1% (page 14 of input package).
- Provide additional information on basis for use of surrogate tanks.

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DRAFT MEETING NOTES
Wednesday, April 21, 2010 (9:00 a.m. - 3:00 p.m.)

Welcome from Sherri Ross DOE-SR and Tom Robinson, SRR.

Proceeded with topics as identified in Agenda for day 2 (April 21, 2010)

Review for clarification of notes/issues that resulted from yesterday's meeting.

Review of Vadose Zone and Backfill Parameter Input Packages

- Provide rainfall data report as reference.
- Evaluate impacts of cycling of water table on various key assumptions (cementitious materials degradation, steel liner, waste release, etc.).
- Evaluate and discuss fluctuations of the water table elevations due to seasonal variations, closure caps, etc.
- Provide information on gas and liquid flow and transport changes to support sub models justification.
- Ensure FTF/SDF RAIs are rolled into K_d assumptions. Specifics, Selenium and Radium.
- Provide information on impacts of groundwater divide and potentiometric surfaces changing over time or their uncertainty (consider GoldSim adjustments of flow directions).
- Provide information on Tan Clay/Gordon Confining Unit representation in both models.
- Provide explicit details on benchmarking of GoldSim and PORFLOW.
- Evaluate uncertainty on aquifer thickness.
- Ensure legends/scales are clear or explained in text.
- Ensure calibration details are sufficiently clear.

Review of Integrated Conceptual Model Input Package

- Transmit waste release report once finalized and approved.
- Ensure allowing liner failure time distribution does not result in risk dilution (i.e., broad distribution).
- NRC will transmit Closure Cap NUREG once available.
- NRC will transmit Southwest Research Center experimental reports on tank fill grout when complete late FY2010 and modeling report on reduction capacity.
- Ensure discussion of diffusion vs. advection for liner failure at t = 0.
- Ensure that text updated for the configuration based on decision on immediate liner failure.

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- Consider additional case or barrier analysis for equivalent Case C with a fast flow path thru basemat
- Planning to account for changes in moisture retention curves for degrading cementitious materials and evaluate uncertainty in values
- Evaluate whether percent of CZ contacted in a fast flow case is impactive
- FTF/SDF RAIs issues for Kd and solubilities for cementitious materials considered
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